THE

MASSACHUSETTS TEACHER.

JUNE, 1858.

Volume XI. C. HAMMOND, Editor for this month. Number 6.

"IN LOCO PARENTIS," OR HOME AND THE SCHOOL.

Home education is one of the topics of the times, and we must consider it as a matter of course, if not of necessity. We think that teachers understand their duty to read and write on this subject extensively. Most of the educational journals we meet with, fail not to give line upon line and precept upon precept. The *Massachusetts Teacher* has entered upon the second decade of its existence, with the announcement on its title-page, that it is to be devoted hereafter to the interests of *Home* as well as School Education.

It is quite easy to talk about home education and its general relations to the school. To define precisely the proper limits and functions of the two sorts of training is not quite so easy: and yet we must make distinctions between them; and it would seem that these distinctions are grounded on important differences, for if they are but one and the same process, and the parent and the teacher have just the same duties to perform, then, assuredly, what we hear about home education as distinguished from that of the school, consists of but little more than words.

It is plain that the parent and the teacher have common interests and sympathies, since they have respect to common objects of regard. The common law has recognized this community of interests in the principle which has so long obtained, that the teacher is "in loco parentis" in respect to the whole

work of school instruction and discipline. And yet there are some theoretical and practical difficulties in determining what that position of the parent is. which the teacher is said to possess as a right, and by which he is shielded in the proper exercise of his functions.

It may aid us in defining the mutual relations of home and school training, and especially in arriving at the true idea of the teacher's proper responsibilities in this matter, if we consider what education is, as an entire process, and what are the ends and uses of this process in its different grades or stages.

The term education may be used with so broad a sense as to embrace all the training the child receives, while passing from the condition of utter helplessness and absolute ignorance, to that state of maturity and personal independence, which confers the rights of manhood and imposes the necessity of individual action and responsibility. In the first stage of this process, that of infancy, which terminates not before the sixth year of life, the great end of training is protection and safety in the first years of physical and mental development. Without any reason of its own to direct, the infant claims the highest reason and prudence of parents and nurses for the security of health and life amid constant perils.

The initiative processes of learning undoubtedly begin at this period, but the powers of observation, the faculties of memory and imagination are developed none the less surely and symmetrically, though the lessons and order of the school-room be wanting.

The acquisition of the names and properties of so many objects acquired in infancy is not properly instruction. The nurse or the parent is not strictly a teacher, though the acquisition of ideas may come by their aid, any more than the world may be called a proper teacher to the man of mature mind.

They are often called teachers, and the methods by which acquisition of ideas is gained in all possible ways, are often called education, but this use of terms is metaphorical. The nurse is sometimes called a teacher, and so the parent and the world are called teachers, because their agency is in some respects analogous to the work of the real teacher.

The proper term to express the development of childhood is *training*, rather than education, and especially is this true of the development of the moral powers. The implanting of the principle of obedience is not done by a process at all analogous to that whereby the mind acquires its first notions of geometry, or its first ideas of grammar or history. Docility is a moral state or condition, implying the loyalty of the soul of the child to the will and the wisdom of parents and authorized governers and teachers, but this state of mind is far different from the exercise of any of the intellectual faculties. The latter may be in vigorous activity, even though the soul should be utterly disloyal to all just authority.

Now the work of moral training is undoubtedly in entire consistency with the highest reason, if we regard its nature and relations to the child's welfare, not only in the condition of childhood, but in all subsequent stages of life. But with the child the reason cannot be in full exercise. The parent must for a time reason for the acts of the child, while yet those acts have still a moral character by reason of the fact, that the mind of the child can yield implicit obedience to the will of its parent. And thus it happens, that the qualities of good and bad in action or in disposition are predicated of the character of even very young children with the same certainty as of mature minds.

But the fact that for many years the intellective powers are immature, (at least those higher powers of reason and judgment which are ultimately to guide and control the conduct of life,) makes the work of training the physical and moral nature of the child very different from that which relates to the unfolding the powers of the reason and the judgment, which is the end of the intellectual exercises of the school-room. It is very possible that loyalty to the law of duty, and entire docility, or a respectful regard to the will and wisdom of parents and teachers, may be very easily implanted; and when this is done, we hesitate not to say that the moral education of any child, although very young, is very nearly completed. If the habit of obedience is once formed, and the conscience is trained to a nice discrimination of whatever is a matter of duty to parents and superiors, then we may reasonably expect that when the law of God comes to be

understood, its obligations will be in like manner regarded by one, who has been strictly trained in childhood to be loyal to the control of all that is right and true.

When the period of infancy closes with the sixth year, and that of childhood commences, then the infant first leaves the domain of the parent and becomes a pupil, and is under the control of a government organized for some different purposes than that of the empire of home. We do not deny that home and the school do both hold the child alike under their control, though for different ends; and that the rule of home should be predominant till the period of youth commences with the eleventh or twelfth year, inasmuch as the physical and moral habits are not formed till the period of adolescence commences, and the intellectual culture of the period of childhood is by no means so important as it is subsequently, and is of itself of small value when compared with the moral training, which should be completed, if possible, at the age of twelve years. It is, we believe, almost universally true that the moral influence of home for good or for ill, on the character of the young, will have exhausted itself when the child has reached the age of twelve years. If at that age the child is bad, he should be removed from home if there be any hope for him, and, if possible, he should be placed, during the revolutionary period of adolescence, under the control of better influences, where, if it can be, the unfolding powers of the reason and judgment, with the aid of the example of good associates and the wise counsels and discipline of judicious teachers, shall counteract and reverse the bad habits and degrading and immoral tendencies of a faulty home education. In a great many instances, the only hope of a wayward child, is to send him forever from the home of fond and doting parents. The sad results of every-day observation show that the very instincts and the strongest sympathies of the parent's heart, which would forefend every approach of physical calamity, may, by excessive fondness and mistaken views of discipline or inability to train the moral nature of children, become the instruments or occasions of constant and oftentimes of irretrievable evil, to those whom they love better than they love themselves.

But if the home training has been of the right kind antece-

dent to the period of pupilage, then but little more is needed in the processes of instruction, than to prevent the learner from straying from the path of duty, which by habit and feeling has already become familiar to the child. The child will then ever seek to know its task, and will be willing to do whatever is justly required. If he fails of his duty, as he often may, his failure, by reason of weakness or thoughtlessness, will be an error rather than an offence. This predisposition to well-doing is the result of that home training which the teacher always so gladly receives from the parent's hand. This good home character is of course the best of all safeguards to the pupil in all subsequent stages of his intellectual progress. For this home training will be likely to endure as long as any impression which can be made upon the receptive and plastic nature of the child. From the guidance of this home training in the way he *should* go, he will not depart when he is old.

We do not deny that homes can be found so perfect in all their facilities to mold and control the character of those whose happy lot it is to be born in them, that no school or seminary of learning can furnish more desirable educational opportunities. Such, we have reason to suppose, was the home of Isaac Taylor, the author of the "History of Natural Enthusiasm," and the author also of a remarkable treatise on "Home Education." He was educated at home in the same way, or in perhaps a better way than most other distinguished scholars are educated for the work of life in all the several grades of schools. And it was because he had derived such great advantages himself from home training, that he determined to write his book to assist others who had selected the same course of education for their children.

But this eminent author does not recommend his own method for universal adoption. He admits that home training cannot take the place of school education except in a very few cases, since the vast majority of parents are utterly incompetent to the task of the entire education of their children, unless the theory of the social system require no more of the parent than that his children shall be trained up, to be and to do whatever he himself is and does. Such, to be sure, is the destiny of the peasantry of many countries in Europe, though not of the nobility. But in

our country, the theory of civilization is, that all men are not only equal to each other in respect to their political rights, but they are equal to the nobility of all European nations in respect to the great idea of our educational system. This idea was well expressed in the words of Daniel Webster, when, adverting to the object of his father in the education of his children, he said it was his aim to "raise them to a *better* condition than his own." This simple sentence, illustrates the aim of popular education in this country in contrast with that of the education of the people in almost all other lands, where the aim is only to train each rising generation to be in all respects as much as possible like that which preceded it.

Now if the aim of education be to make the condition of the child *better*, if possible, than that of the parent, there are presupposed, as necessary to this end, functions and qualifications in the teacher of the children, which the parents and guardians of the children do not possess. Hence the maxim "in loco parentis" cannot mean, that the teacher is in the place of the parent as he actually is, but as he should be; that he is not to conform to the prejudices and notions of the parent if they are not what they ought to be; but that they must be, within his appropriate sphere of instruction and moral discipline, just what the views of the parent should be, as determined by the standard of truth or the reality of things.

If the parent only has the responsibility of the entire work of education, then it is safe to say that in a vast majority of cases, the education of the young in respect to the development of the intellect, and the knowledge needful for the conduct of life in such a civilization as our own, will be carried but a little way beyond the "childish things" which the mature man must "put away," or be forever a child.

If what we have said be correct, then the teacher may have other and even more important ends and interests to serve, than that of the parent's *own* interest in the welfare of his children. In China, a man's children are considered his *own* as long as he lives. Until he dies-they are "not of age" to choose for themselves, anything whatever contrary to his will. A man cannot marry without the consent of his parent, whatever his own age

may be. But in our theory of education, it is always taken for granted that the day is not remote when the child is to be legally and socially independent of the authority of the paternal mansion; and education in the schools of all grades, and especially in the higher grades, always has reference to the interest of the pupils as something which *belongs to themselves*, and to none beside, to duties which they must themselves perform, and not as the servants of any human being.

It is therefore evident, that as the period of adolescence draws to its close, the aim of the teacher must more and more have a direct reference to the welfare of the pupil as the *party mainly concerned*, and less and less to that of the parent, except, indeed, so far as that by sympathy and affection, he may regard the welfare of his child, at all times, as his own.

The teacher must have regard, not more to the special regards of the parental home, than to that which shall tend to the welfare of the pupil's home when he shall have become himself a member of the social system.

We do not believe, then, that in the later stages of education the authority of home should be predominant; although we do not deny that a coincidence of home influences may have, at all times, a most happy effect in aiding the teacher's labor and influence. We do not believe any class of men are so competent to control the entire policy of instruction, in all its details and departments, as those who are devoted to it as a profession. Therefore, the teacher should, as a general thing, stand in all other respects "in loco parentis," as well as in the matter of moral discipline; and the parent, as a general rule, should, in regard to the appropriate work of the school-room, never stand "in loco docentis."

If this be not the true theory, then the educational system of the ancients was the correct one: which allowed the employment of the most intelligent of the slaves to become the instructors of the children of their masters. In this way a New England teacher really becomes a white slave on a Southern plantation; where negroes would sooner be employed, in many cases, if it were safe to fit them to become teachers. Substantially the same principle underlies the theory, defended in a recent number of Brown-

son's Quarterly Review, in which the entire system of American popular education is denounced, because the teacher is not, in all respects, under the law of the house or home of the pupils. Hence the withdrawment of a large part of the Roman Catholic population from the public schools, because the parents cannot control the entire administration of the schools. And the same opinion is practically maintained by many other sects, who will allow no teacher, who is not of their religious faith, to have any concern in the education of their children.

Against this theory we most earnestly protest, as being contrary to the great end of that system of education which our civilization has originated. In New England, hitherto at least, the teacher has not generally been considered as the slave of the parent, nor as the servant of the State; but as a man engaged in an honorable calling, having, in the eyes of his fraternity and all honorable men, rights and functions properly and truly his own, and not another's. In his own place he is, and ought to be, free to think and to follow his own discretion, without regard to the dictation of parents or superintendents; since the *discretion of a good teacher is the very best part of him,* and its exercise is as needful in controlling the *policy* of education, as it is in its *methods* and *discipline.*

We maintain that, in his own sphere, he should be as independent as the clergyman or the physician in his vocation. We go farther than this. Not only should entire liberty of administration be allowed as a right, but it should be imposed upon him as a responsibility. We have no sympathy with the doctrine of a certain School Committee who said to the teacher, when they gave him his commission, "You attend to the teaching, and we will do the thinking."

The duty of an examining committee is to secure a competent instructor, and to see that he does faithfully his whole duty, which includes the entire instruction and government. They are not in duty bound to help him govern; that duty he must perform to their satisfaction as reasonable men, or they should displace him and appoint his successor. If a tree cannot stand alone, the support of props is a sign of weakness which all can understand.

We well remember the advice to a teacher of an academy given

by a wise trustee, in a case of discipline in which the whole community was deeply interested. When it was proposed that the trustees should assume the responsibility of deciding the case, and thus shield the teacher from personal reproach and obolquy, the trustee referred to strongly objected. He said it is best for the teacher to bear his own burden and give his own judgment without the sanction of the trustees beforehand. "Let the teacher," said he, "consider the question in all its bearings; aid him in his judgment by all the light we can bring; but let the judgment be his own. Then, if he decides right, he will place himself higher than we can raise him in the favor of all right-minded men. If those who are dissatisfied appeal, afterwards, to us, as they can if they choose, our approval will then strengthen the teacher's authority; but if we give our decision beforehand, his authority will be weaker than it was before."

It is well known that Dr. Arnold regarded the matter of personal independence as one of so much importance to his success, that he utterly refused to have anything to do with the Rugby School, unless it should be unconditionally and unreservedly confided to his hands; the overseers having no alternative left by the conditions of his engagement, except that of his dismissal when they might become dissatisfied with his course. It need hardly be said that with a teacher of Arnold's temperament and aspirations, the motives to faithfulness would be powerful in proportion to the importance of the trusts confided, and that the unreserved surrender of such great interests to his discretion, would become the strongest of all possible safeguards against the abuse of confidence.*

* Since the paragraph above was written, we have found in the March number of Barnard's Journal, the views of Dr. Arnold on the teacher's relations to parents and school overseers, well presented in an article by Prof. Elliot, of Trinity College, Hartford. If our readers desire to see them more fully developed, they will find them in Stanley's Life of Arnold, a work which should be found in the library of every teacher.

Prof Elliot says:

"In his relation to the trustees of the school, Arnold at once took the position that he must be independent of all interference from them. It was his duty, he said, 'not only to himself, but to the master of every foundation school in England,' to resist every intrusion into his own province; he, and not the trustees, was the master; he, and not they, must do the master's work, and hold the master's authority. He had no mind, on the other hand, to shake off any just control. To the trustees, in their proper places, he looked with a respect and a submission that could not have been greater; nor could the intercourse between him and them have been, as a general rule, more agreeable or

In claiming for the instructor such a degree of freedom of thought and action on all subjects which concern him as a man and as a teacher, it may be said that he will thus be sure to be in conflict with many of the parents of his pupils, on some subjects which are by them, as well as himself, deemed to be of the highest importance. We admit this difficulty to be one of considerable importance; and we are ready to admit that it may sometimes summon the earnest and faithful teacher to scenes of conflict for the sake of truth and justice. Such was the fate of Dr. Arnold in the station he occupied. No man ever loathed evil with a more cordial hate. No man ever lived who was firmer in the defence of truth and right; and yet he fought the battles of truth against ignorance and sin, in the spirit of the most sincere love for the best interests of those whose principles and practices he deemed to be wrong. Hence he never forfeited the respect and esteem of those whom he opposed with his utmost energies.

His great example can be imitated by few, or, perhaps, none of ourselves, for Providence calls but few men of such rare gifts to posts of such great influence as he filled. There is, however, no position which the teacher occupies, however humble its grade may be, which does not sometimes summon the soul to severe trials of those very virtues of faithfulness; of endurance in heroic suffering; of faith, unwavering in the truth of God; of changeless devotion to the dearest rights of humanity.

The difficulty of meeting the claims of conflicting sects and parties is especially perplexing to those who are employed in the public schools; and there is truly need that the faithful

amicable than it was. The point with him was simply this — that if he was to possess the confidence of the trustees so far as to be placed or to be retained in the mastership, he must possess it in such measure as to be his own master as well as the master of the school. Fortunately the constitution of the Rugby School favored the independence of the head-master.

"There was the same sort of claim on Arnold's part to independence in relation to the parents of his pupils. He bore with no meddling, he deferred to no pretence from them; their putting their boys under him was not putting themselves above him. Yet no teacher was ever readier to recognize his true responsibility to the parents of his scholars. 'It is a most touching thing to me,' he said, 'to receive a new pupil from his father, when I think what an influence there is in this place for evil as well as for good. If ever I could receive a new boy from his father without emotion I should think it was high time for me to be off.'"

teacher, no less than the Christian minister, should in his vocation have at all times the wisdom of the serpent in avoiding evil from others, as well as the harmlessness of a dove in doing no positive wrong to any human being, and especially to the pupils of his charge.

If, however, the teacher comprehends the ends of his own distinct vocation, there can be but few localities where he may not do all that becomes a man of honor and principle to do, while he omits no duty and is deprived of no right. We have no sympathy with the idea we have lately heard advanced by a very respectable Puritan divine, that the teachers must withhold instruction on moral or religious duties, and leave them to be wholly under the care of parents; on the ground that if he should perchance speak of religious duties at all, a mind of sharp discernment might, with a good degree of certainty, determine what his views in moral philosophy or doctrinal theology might be. We believe, on the contrary, that the practical duties of men, both to themselves and to God, are uniform and changeless, and such duties may alike be regarded as preceptive by the believers of every name and creed. Any farther than this it is not ordinarily required for teachers in the proper exercise of their vocation to go.

In respect to the question, What can teachers do to remedy the defects of home training? we are free to confess, that we do not deem it the special province of teachers to give instructions to parents, who neglect the welfare of their children. We most respectfully decline the responsibility of giving tuition to the father of a bad boy, or of trying to reclaim from the error of their ways, the mothers of so many young misses, whose heads they have turned aside, and whose hearts they have most industriously filled with lying vanities. We have more than we want to do or can do, in trying to reclaim the children of those parents, who have been spoiled by the neglect of home training. But we think there is a great work to be done by such as think they are called to such a mission. We respectfully ask the aid of all the clergy and such other moral teachers, whose business it is to teach "children of a larger growth," whose families stand in perishing need of salvation. Let the Rev. Warren Burton and the Rev. Mr.

Quint, and others who have made a beginning in this good work, be encouraged to labor with patience. We hope they will not be weary in well-doing. We may then anticipate some relief from tasks of our own which now seem hopeless. For we feel that it is too much for the patience of a mortal man to bear, when we are required, as we too often are, to transform a character utterly spoiled at home, into one of respectability and promise, by the appliances of the school. It is time that the blame of the ill success of the teacher should be placed where it belongs. It should be thoroughly understood before the pupil enters school, that if parents have utterly neglected their duty, then the best instruction and the wisest discipline of the most faithful teachers will often be wholly fruitless. Water spilt upon the ground cannot be gathered up. C. H.

For the Massachusetts Teacher.

"THERE IS NOTHING COVERED THAT SHALL NOT BE REVEALED."—Luke 12: 2.

DAY by day the books are opening,
Hour by hour earth's shadows fly,—
Stones are rolling, seals are breaking,
Buried Truth bursts on the eye.
Deep within the well long hidden,
Slowly she ascends to earth,
Locks dishevelled, garments dripping,
Still she shows her heavenly birth.

Now a simple workman, hewing
Sandstone mines on Scottish shore,
Sees her beauty, all subduing,
Gleaming through earth's rocky floor:—
Down the vista of past ages
Views Creation's dawning light,
Reads upon these stony pages,
Chronicled, Time's long, long flight!

Ocean's mighty depths are sounded,
And its secret bed we see,

Vast plateaus, and mountains rounded,
Currents sweeping broad and free; —
Winds and waves to us are singing,
What attracts and what repels,
Swiftly on their errands winging,
Each its wondrous story tells.

Now that artist true — the sunbeam —
Limns for us the face we love;
In return man paints the star-gleam,
Photographs the heavens above.
Now the lightning takes his message,
And the subtle vapor, caught,
Bears on wheels of fire the presage
Of the future's conquering thought.

Man the physical is piercing,
Scanning fish, and rock, and flower,
Still unfolding, still increasing
Science' vast domain of power.
And all Nature meets the seeker
With a loving, open heart,
And becomes the earnest teacher
Of fair beauty, truth and art.

All the earthly and material
Shadow forth a higher life,
And the real and ideal
Mingle in a peaceful strife.
But we study most the outward,
What the senses can explore,
And neglect the nobler inward,
The immortal mind ignore.

No philosopher has sounded
All the mental powers of man —
Partial, narrow, fixed and bounded
Are their theory and plan.
Every year new facts are gathering,
Unexplained — not understood —
All old methods of expounding
Baffled by their subtle mood.

O for some great, noble genius,
  Suited to this stirring time,
Who may solve the mystery to us,
  Of the problem — human mind!
Psychologic facts are puzzling
  Many a wise and thoughtful brain,
And no old-time gloss and muzzling,
  These enigmas can explain.

As we study outward Nature,
  Analyze her secret laws,
Should we of the mind's each feature
  Penetrate the primal cause;
While we ponder the material,
  Look beyond its narrow bound,
Seek to understand the real
  Of the soul, which may be found.

GROTON, March 23d, 1858. E. E. P.

EDUCATIONAL MUSEUMS AND CABINETS.

IN the number of the *Teacher* for February, mention was made, among publications received, of the last Annual Report of the Rev. Dr. Ryerson, Chief Superintendent of Education in Upper Canada. Among the many interesting topics introduced in this valuable document, is that of the establishment of a provincial educational museum, in connection with the Normal School in Toronto. The indefatigable zeal of Dr. Ryerson, aided by the legislative appropriation available for such purposes, has enabled him to commence this noble undertaking in a style highly creditable to his industry, judgment, and taste. His endeavors have been generously facilitated by the official patrons of education connected with the home government, and a collection of educational materials has thus been secured, the annual enlargement of which, from provincial and transatlantic resources, will make it one of the most effectual aids to general education in Canada which has yet been adopted. But the benefits to be derived from this

source will not be restricted to the provinces, as has been evinced by the numerous visitors from the States, who have been attracted to Toronto by this department of its educational establishments.

Referring to certain Acts of the Provincial Legislature, Dr. Ryerson says, "I have been enabled to introduce publications and plans for the improvement of school architecture into all the municipalities of Upper Canada; to obtain models and instruments and apparatus for teaching and illustrating different branches of natural history and science in the schools; to commence a collection of specimens of the Canadian birds and animals, of the geology and mineralogy of the different provinces of British North America, models of agricultural implements, &c., together with several hundred books, publications, and objects relating to edution and other departments of science and literature. I have also been anxiously desirous of preparing the way for, and, as far as possible, of giving effect to, what was contemplated in connection with the School of Art and Design."

Speaking of the importance of objects of art, as forming a prominent feature in an educational museum, Dr. Ryerson quotes some highly suggestive remarks of Col. Lefroy, who, with other friends of art and of education in England, took a deep interest in the subject of Dr. Ryerson's recent visit to that country, as may be seen from the following extract: "No one can deny that this taste (for art) is deplorably wanting in America universally; — much that gives intellectual rank and dignity to a people is wanting with it; and life is deprived of a source of manifold pleasures of the highest kind, in consequence. Now the Provincial Normal School occupies a position which can hardly be paralleled in advantages for initiating a better order of things. Not only does a very numerous class of the community pass under its influence, and receive its mental and moral stamp, but that class is more than all others the one which has probably the greatest influence in forming the *minds* of others. Even the clergy of a country must yield, in some respects, to its schoolmasters, in the privilege and responsibility of forming the character and influencing the judgments of its people — alike of parents as of children."

Alluding to his recent European tour, undertaken for the

accomplishment of his purposes connected with the founding of the educational museum of the province, Dr. Ryerson says: "The copies of *paintings*, which I have procured, present specimens of the works of the most celebrated masters of the various Italian schools, as also of the Flemish, Dutch, and German. The collection of *engravings* is much more extensive. The collection of *sculpture* includes casts of some of the most celebrated statues, ancient and modern, and busts of the most illustrious of the ancient Greeks and Romans, also of sovereigns, statesmen, philosophers, scholars, philanthropists, and heroes of Great Britain and France; likewise a collection of *architectural casts*, illustrating the different styles of architecture, and some of the characteristic ornaments of ancient, Gothic, and modern architecture."

The extent of these collections is truly surprising, when we consider the fact that the museum is but in its infancy. The *casts* from the antique alone amount to over two hundred; in modern sculpture, the number exceeds five hundred; in architectural sculpture, the pieces amount to upwards of two hundred. In the enumeration of the specimens, the subjects are systematically arranged in classes, as groups, statues, busts, mythological and historical, including deities, heroes, statesmen, orators, poets; the gallery in which each of the originals of these casts is found, is also carefully indicated. In the catalogue of modern sculpture, the name of the artist is given, wherever it has been ascertained. The architectural casts of Greek, Roman, and mediæval subjects, also, are distinctly designated, and referred to the structures from which they are copied.

The catalogue of *paintings* is arranged so as to present systematically the Italian, Flemish, Dutch, German, French, and Spanish schools, with the date of each of the originals, its subject, the master's name, and that of the gallery where it is found. The whole number of paintings is upwards of two hundred and sixty, including copies of most of the historically great productions of art in this department, a knowledge of which is important to the intelligent reading of history, biography, and all kindred subjects. The collection of *engravings* on copper and steel, and of lithographs, is not only of great extent, as to number and variety of subjects, but in many instances of rare excellence and high value as specimens of art.

To the foregoing treasures of art are added many volumes richly illustrated, in various departments of art and science, besides a valuable collection of maps and plans in relief, illustrative of geographical and historical scenes of special interest. The cabinets of specimens in natural history, the collections of models, apparatus, and implements, we need not dwell upon, as our purpose, at present, has reference, rather, to the influence which the art department of an educational museum may be expected to exert on the young mind, by refining and elevating its taste and tendencies.

The introduction of drawing into our primary and common schools, which is now in happy progress in New England and elsewhere, indicates a recognition of the value of that branch of education, as a means not only of preparing our pupils for purposes useful in after life, in connection with exact observation and close attention, and the command of a skilful use of eye and hand, but as a means of mental and moral advancement, by the discipline of taste and imagination, and the consequent refinement of habit and manners. Next in importance to religious principle and a personal sense of duty, as a pervading and habitual influence on the character, whether of a school or an individual of its pupils, is that sense of propriety which prompts to becoming respect for teachers, kindness to fellow pupils, and courtesy to all. In not a few schools do we observe an utter want of this trait of Christianity and of civilization. Whatever tends to general improvement in this respect, every true educator, whether teacher or parent, must highly value; and, next to a true and heartfelt love of nature, in its aspects of serenity and grace, as a means of creating sensibility of heart and gentleness of manner, we may assuredly rank the genial and refining influence of pure and true art.

We have an affecting instance of the truth of this remark in the case of Felicia Hemans, in her childhood. On entering a gallery of sculpture for the first time, in company with the other members of the family, "Oh, hush!" was the immediate exclamation which involuntarily escaped her lips, giving a most eloquent utterance to her emotions of tenderness and awe, and reverential admiration.

The writer had the following instance of the "*emollit mores, nec sinit esse feros*," — the refining and restraining influence of art, — from a friend who was a witness to the scene. A fellow of coarse manners and low habits, who had found his way into a hall in an English city, where there was a public exhibition of paintings, and who had been civilly requested to take off his hat while in the room, gave an angry refusal in loud and violent tones, indicating the fact that he was not in a fit condition to enter such a place. He then pushed rudely on for the inner room, opposite to the door of which hung a life-size copy of one of those serene Madonnas which seem rather to have descended from heaven than to have been produced on earth. The moment his eye caught the picture he stopped and stood still, as if arrested by some unknown force, instantly took off his hat, and remained for several minutes gazing in mingled reverence and wonder on the expressive figure before him. Quieted and utterly subdued by its effect on him, he after some time walked uncovered and in silence around the rooms, in earnest and tranquil attention to the other pictures, and with becoming deference to the presence of the other visitors — at the time principally ladies.

Music has within a few years done much to facilitate the attaining of order and gentleness of deportment in the schools into which it has been introduced. But we have not yet appealed as we might to the powerful influence of painting and sculpture. A friend whose school the writer often visited, had the walls of his chastely adorned school-room furnished with busts of great and good men, and with some of the choicest paintings of moral and impressive scenes from daily life. A cast representing the Saviour of the world occupied a conspicuous place, and the teacher's finger pointing to that serene and compassionate face, was always sufficient to quell the risings of conscious evil within the bosom of an erring pupil.

We need such establishments as the educational museum and cabinet, in all our schools, ample and costly in our cities, liberal even in our district schools. We need them for all the highest and noblest purposes of culture, and we need them, in this day of reforms, to aid the genial influence of our well planned and well furnished school edifices, in training our youth to decency and

order and taste, and also to the careful treatment of all objects, whether of fine or useful art, but most of all to that self-respect which shall render them incapable of low and degrading habits of any sort. A cabinet, a gallery, a museum, are among the most effectual of preventive influences, in relation to whatever is evil, by the purifying and genial sunlight which they shed on the young heart. When shall we have in *Boston* an educational museum, free to all the children of the city, for an early morning resort, and for the spare hours of our half-holidays and vacation times?

The Canadian educational museum resembles in its plan and purpose, although on a more limited scale, the national educational museum at South Kensington, England. Of this magnificent establishment Dr. Ryerson gives the following brief account:

"In England, schools of art and design are becoming prominent features of popular instruction, in the principal cities and towns. In connection with some of these schools, interesting collections of objects of art, consisting chiefly of paintings, specimens of sculpture and drawing, plaster casts of statues, statuettes, and busts, models in marble, alabaster, ivory, wood, bronzes, terra cottas, models in wax, plaster, &c. In connection with the Royal Schools of Art and Design in London, (formerly kept in Marlborough and Somerset Houses,) upwards of a thousand of these specimens are collected and arranged. These schools have been recently removed to South Kensington, west end of London, where new buildings have been erected, and an educational museum established, the collections of which are grouped under the following divisions: 1, comprehending plans, models, specimens, exemplifying school buildings and fittings, forms, desks, slates, &c.; 2, General education department, including books and objects connected with instruction in reading, writing, grammar, arithmetic, mathematics, foreign languages, and histories; 3, Drawing and the fine arts; 4, Music; 5, Household economy; 6, Geography and astronomy; 7, Natural history; 8, Chemistry; 9, Physics; 10, Mechanics; 11, Apparatus for teaching the blind and deaf; 12, for Physical training and gymnastics."

From an English paper, quoted by Dr. Ryerson, we gather the following particulars. The South Kensington Museum is a

result of the School of Design, founded in 1838, and the Great Exhibition of 1851. The School of Design, under the influence of the feeling generated by the Hyde Park Palace, expanded into the present "Department of Science and Art," under the "Committee of Privy Council on Education;" and the nucleus of a permanent museum of arts was formed at Marlborough House. The Department of Science and Art has achieved a building in which its schemes for training may be systematically carried out, and its curiosities constantly exhibited. Thither are transferred all the ornamental specimens from Marlborough House, the entire collection of the Architectural Museum, together with many articles belonging to the Commissioners for the Exhibition of 1851. Thus decorative art and practical science have a permanent home, which, moreover, is nobly adorned by the fine collection of pictures and drawings munificently given to the nation by Mr. Sheepshanks. The offices of the department and the training schools are under the same roof as the museum, which, while it will be a source of national recreation to the general public, will also, it is hoped, be an important agent in the instruction of the students.

The educational part of the museum occupies the centre of a large iron building, which forms a wing of the entire edifice. To this collection the "Commissioners of Patents Museum" forms a supplement.

Every thing has been done to render the new museum a source of instruction and amusement to all classes alike, the exigencies of time being taken into consideration, as well as the exigencies of the pocket. On Wednesday, Thursday, and Friday, — being students' days, — the price of admission is sixpence; on the other days of the week, admission is free. The catalogues required cost one penny each.

The interest taken by the people at large in this noble institution, may be inferred from the fact, that the average monthly number of visitors has been upwards of *forty-four thousand.*

The benefits of the national museum are not restricted to the students and pupils immediately connected with its various departments. By the requisite provision of duplicate copies, many of the most interesting objects, at the request of the managers of

the sixty-five local schools of art and design, in various parts of Great Britain and Ireland, are circulated, successively, from place to place, and exhibited, at a nominal cost, to public inspection, and thus become aids to the advancement of general education, not less than to the purposes of training in the departments of art and science.

An educational museum, on a liberal scale, as to natural objects at least, might easily be established, not only in our own cities and principal towns, but, with zealous exertion on the part of teachers and committees, and especially of pupils, even in our schools in villages and rural districts, as has been already suggested in the pages of the *Massachusetts Teacher*, by our eminent living naturalist and friend of education, Professor Agassiz, see Vol. III, No. 1, (Jan., 1850.) There are few of our cities, or even villages, which could not add to the furniture of their central school an interesting and instructive collection of models, engravings, drawings, maps, and other attractive implements of education, a telescope of moderate cost, and that magic educator, a good microscope. W. R.

LATIN AND GREEK IN PUBLIC SCHOOLS.

The expediency of introducing Latin and Greek into our Public Schools, or of providing a classical course, more or less, for those who are not expecting to engage in the learned professions, so called, is, of course, an open question. In other words, it is a subject proper for discussion, and will "bear the light." There has been much said in favor of such a course — much of sound argument, and probably some that is not sound; and on the other side of the question, with some plausible argument, there has been, we think, much advanced that reflects little credit upon the cause or its advocates. There are those who cannot favor or advocate any particular measure without disparaging some other measure. Their own position is made relatively higher, only by lowering that of those with whom the comparison is to be made. Hence many who have a desire for improvement

in the course of study and the methods of teaching in the English branches, very singularly commence their misnamed improvement by decrying the study of Latin and Greek, and by sneering at classical studies as useless for those who wish for only a "practical education." Want of time to complete a classical course, is the grand lever by which they would remove such a course from the programme of the schools. That this is sometimes, indeed frequently, done by professional teachers, is as true as it is mortifying to those who have a lively, sensitive interest in the honor and high tone of the profession. But the study of Latin and Greek hardly need be treated as a matter of controversy; only let the question of their utility be determined by those who have correct views of the nature and objects of education, in its highest sense. It is by no means a question between the old and the new, with dead languages on the one side, and the English branches and modern languages on the other, between which a choice is to be made. Fortunately we are not compelled to elect one and discard the other.

But the whole scope of the inquiry is this: What are the reasons for studying the ancient classics? Is the study of them eminently fitted to *educate* the mind? and is it attended with such decided, permanent advantages, as to entitle it to rank, indisputably, among the efficient agencies and methods of education? This inquiry shall be examined, though briefly, of course.

We shall presume that education and knowledge are entirely different; for a greater mistake on this subject can hardly be committed, than to regard them as identical or synonymous. A person may amass much knowledge, and become the repository of many facts, even a walking encyclopædia, and yet be uneducated. In the hands of those whose minds are undeveloped, knowledge is neither permanent nor capable of future use. It is like water dipped up in a basket, soon lost for the want of power to retain it; or like a collection of tools in the hands of one ignorant of their use. The mere shopkeeper who has on the shelves of his warehouse a great variety of mechanical tools and implements, cannot, for that reason, be called a mechanic. The person deserving that name is the one who knows how to *use* those implements, or who, in case of necessity, can even make the implements themselves. So, an edu-

cated mind is not a mere storehouse of facts, but an intelligent agent, with power to act and to perform, independently, the work of life. To educate is to draw out and to develop the powers and faculties of the human mind, and to give them growth, strength, and vigor; to form and mould them in their development, and not to furnish or cram them with every possible variety of information. To do this the mind must work, and work vigorously; and the work must be its own. Nothing but a course of the most rigid discipline can effectually accomplish this work of education. Strong work makes strong minds. That which taxes the mental powers severely, by their varied use and increasing exercise, will give them power. What the gymnasium does for the body, true education does for the mind — for the heart and the head. Those who will contend that anything less than this is deserving of the name of education, have no right to ask to be heard upon the utility of classical studies.

Now we maintain that a thorough study of the Greek and Roman writers actually furnishes, or constitutes, this needed course of vigorous discipline of which we have spoken. In its very nature it must invigorate the mind and give it an infusion of energy — energy in action and in ideas. That such are the results of the efforts necessary for the acquisition of a knowledge of these languages, is a truth well known and beyond all controversy. It is a work to be performed mostly in youth; and at this period the faculties are in that stage of their incipient development which peculiarly fits them for beginning the study of language. The memory, than which no faculty is more susceptible of improvement, is then fresh and impressible, and is one of the first faculties called into requisition; and the subsequent demand for its use is constantly increased. Consider, now, the great number and variety of processes in which the mind of the pupil is *compelled* to engage, to acquire a critical knowledge of Latin or Greek. Attention must be given to the meaning of words, and that meaning ever varying with their use; to their derivation and composition, and their many inflections and modifications to express numberless circumstances and conditions, and the various sdades of thought; to the peculiarities and idioms of the language; to the thought as expressed in the words of one language

and to be eliminated and clad in the words of another and a different language; to the constant comparison of the language the pupil is acquiring, with his own; and to the derivation of the latter from the former, and the history of the changes by which that derivation has been made. Upon all those, and many other particulars, the learner is rigidly exercised in the preparation and recitation of every lesson. Numerous and varied as those exercises are, they must, nevertheless, all be performed repeatedly and continually, and with every possible change and interchange in their succession and order. And all this must also be done promptly and with accuracy.

Now the effect of such exercises and such discipline is, inevitably, to draw out the mind, to strengthen and invigorate its faculties, to adapt them to varied use, and, finally, to fit their possessor for almost any active occupation whatever.

Mathematical studies are much extolled, and deservedly so, we grant, for their excellence in training the reasoning powers. But has not the study of the classics a potent influence to this same effect? After a few preliminary lessons upon the inflections, the judgment is daily and constantly called into exercise. As an exercise in mental science, it is a most interesting and instructive lesson to observe the operations of a pupil's mind, in his attempts to select the best meaning for a word or sentence for translation. After all the light which his lexicon and grammar throw upon it, he must finally fall back upon his own judgment. Take a passage, say fifty lines from Homer, or from Virgil; or an oration from Cicero, that in behalf of the poet Archias, for example; and propose to yourself to make a correct, elegant, and spirited translation — one that shall faithfully daguerreotype the idea and life of the original, and at the same time be faultless as a specimen of good English. Consider carefully all the nice weighing and balancing of words, ideas and idioms; the corrections and revisions necessary for such a task; and can anything be better calculated to exercise and train the judgment and the discriminating powers, and to make the mind self-reliant?

But an objector will say, Are you not, after all, dealing with mere words? Emphatically do we answer, *No!* We can hardly smile at such an inquiry, but would rather pity the interrogator,

especially if he be a teacher. Words are the conventional signs of ideas and things, and a person cannot long be employed upon words or signs, in the manner mentioned above, without coming face to face with the things indicated by those signs. The thought expressed by those signs must be constantly before the mind; everchanging thought, with language changing, correspondingly, to give it intelligible expression. For what purpose are all the inflections and modifications in the words of a language, but to express the different shades of thought, and to make that thought prominent and transparent? This declamation about the study of mere words, could never have come from a deep student in any language whatever — not even in his own. Thought as naturally leaves its impress upon language, as the seal imprints its device upon the yielding wax.

It is alleged as objectionable to Latin and Greek, that they are dead languages; that they relate to the past only; and that they embody a system of mythology or religion that is heathenism. From all this objection, and from every part of it, there are to be derived strong arguments in favor of the study of those languages.

While it is asserted that Latin and Greek are dead languages, let it be remembered that the nations by whom they were once spoken, are dead also; that Greece and Rome, once the lights of the world, are no more; and that the only really valuable monuments we possess of their greatness are these languages; monuments in comparison with which their marble ruins are scarcely comparable at all, as keys to a knowledge of those people, their genius and institutions.

Material monuments throw but a dim light upon the annals of the past. The banks of the Nile are strewn with broken marble, and the pyramids are the dumb wonders of the world; while the early history of Egypt is a blank. But the language of a people, though it be but fragmentary, leads us at once into the whole economy of life among that people.

As to the connection of those languages with the past, that can be regarded as objectionable to those only, who have a foolish aversion to whatever is ancient, and who are impatient for incessant innovation. It is not to be denied that there is in our

nature a principle that leads us with fondness back to the past, and causes us to cherish it with veneration. We are suspicious of the person who would oppose a healthy exercise of that principle.

It is true that classic mythology was a system of heathenism; but it is equally true that it was, nevertheless, a system of religion. And he who would well understand any people, must study their religion. From it we gain a deep insight into the nature of that people, and learn much, also, of our own nature. The Greeks were preëminently a religious people; for their religion entered into their whole life, public and private. That religion was not materialism; for all nature, and the operations of nature, were by it invested with a spiritual divinity. It elevated and refined the minds of the Greeks, and prepared the world for a higher religion that was to follow. Although it contained errors and absurdities, it is idle to suppose that the student is in the slightest danger of embracing them, or mistaking them for truth. They are, of themselves, their own beacons of warning. As well might you predict harm to the mariner who desires a knowledge of the buoys and light-houses on his voyage, which serve, not to allure him on to danger, but to show him where it is, that he may avoid it. With the utmost confidence, therefore, we claim a *moral influence* from classical studies.

The most extreme utilitarian is compelled to acknowledge that a vast amount of practical information is acquired during the faithful study of Latin and Greek. With the history, geography, chronology, and manners and customs of the nations of antiquity, he cultivates an every-day familiarity; so much so, that all the particulars relating to them become thoroughly inwoven and associated with his habits of thought. Information and facts obtained by such a systematic course of investigation and study, unlike those acquired by mere reading, become absolutely the permanent possessions of the mind. The student of the English language who wishes to become master of our own tongue, will find it extremely difficult, if not actually impossible, to accomplish that object without an acquaintance with the classics. He must extend his investigations through the structure of the language, and trace it, not only to its roots, but must follow those

roots to their origin. This will inevitably lead him, through other modern languages, perhaps, to the dead languages, and more especially to the Greek, which is, to a considerable extent, the parent of all languages known or commonly studied by American scholars.

In an article whose limits must not be extended, we are not allowed to dwell upon the refining influences of classical studies; and by refining influences, we mean, not simply that classic polish which characterizes the finished scholar, but also those harmonizing and mellowing influences which they bestow upon even moderate culture, giving to the laboring man a hearty appreciation of system and method, and a range of thought which becomes a perpetual source of delight in his respite from toil.

For the reasons enumerated above, (and others might be added) therefore, we regard the conclusion as inevitable, that the study of Latin and Greek does hold a high rank among the very best means of a thorough education — such an education as shall make man not only a scholar, but an active, independent worker in the business of life. Since our public schools form such an important and indispensable part of our system of education, there is the same propriety in introducing their study into those schools, that there is for their introduction into academies and private schools. To those who make use of the plea that we have not time for such studies, we respectfully submit that their plea is founded upon a misconception of the facts in the case; for those facts do not warrant it, but show conclusively, in every year's experience, that the time needed is no more than is actually at the command of a great majority of those educated at our well conducted public schools; and they also show that the time often spent in a course of elective, discursive study, without method or definite object, and, of course, without much profit, would be amply sufficient for our purpose. A person needs not necessarily exhaust an extended classical course in order to be really and permanently benefited. In mathematics, that science of such vast compass, and great variety of applications, how few educated persons make even a respectable beginning, And yet the business man, of average education, acquires enough to be of practical use to him, and to sharpen his faculties for the busi-

ness of life. It would be difficult to make him believe that his time has been thrown away, because he did not pursue the study far enough to enable him to comprehend the "Mécanique Céleste." So in the study of Latin and Greek, it is not the amount read, nor the time devoted to them, that measures the benefit; but rather, the manner in which the mental drill is performed, and the thoroughness with which the faculties are trained and disciplined.

There are those who would postpone the study of the classics, until after the acquisition of a good substantial English education. The most that can be said of such, is, their advice amounts to this, and no more: Educate your children, and then begin to employ one of the best acknowledged means of educating them. Invigorate their powers, and then adopt measures to give them vigor. Such inconsistency is too palpable to need further exposure. It seems very much like advising an agriculturalist, who wishes to raise a variety of crops in the same year, to sow the seed of one crop, and then to cultivate and harvest the same, before another kind is sown. Experience has shown that the different kinds of seed would better be sown at the same, or nearly the same, time; that they may all be nourished by the same sun, shower, and dew; and then the harvest will not linger, but be both varied and abundant, and all the sheaves will be gathered into the storehouse. A. P. S.

CULTIVATION OF THE MEMORY.

[From an address* before the Massachusetts State Teachers' Association at Charlestown, Nov. 25th, 1856, by Prof. Joseph Haven, of Amherst College.]

Like all other powers, memory may be cultivated, and to a wonderful degree; and, like all other powers, it gains strength by *use*, by exercise. The first and chief direction, then, if you would cultivate and strengthen this faculty of the mind, is, *exercise* it; train it to do its work — to do it quickly, easily, accurately, and well — as you train yourself to handle the keys

* This whole address has since been incorporated in Prof. Haven's work on Mental Philosophy, published by Gould & Lincoln. Boston: 1857.

of an instrument, or to add up a column of figures with promptness and accuracy

To be more specific. — As regards any particular thing which you wish to remember: 1. Grasp it fully, clearly, definitely in the mind; be sure you have it exactly — *it*, and not something like it or something about it. 2. Connect it with other things that are known; suffer it to link itself with other ideas and impressions already in the mind, that you may have something to recall it by. 3. Frequently revert to it, until you are sure that it has become a permanent possession, and one which you can at any time recall by any one of numerous connecting links. In this way you secure the two conditions already specified as essential, viz., frequency of coëxistence, and vividness of conception.

A thing is recalled by the suggestion of any *coëxisting* thought or feeling. Observing this, ingenious men have availed themselves of the principle of association to construct various mechanical or artificial systems of memory, usually termed *mnemonics*. The principle of the construction is this: should you see an elm or an oak-tree, or hear a particular tune whistled, at the same time that you were going through a demonstration in Euclid, you would be likely to think of the tree or the tune whenever next you had occasion to repeat that demonstration. The sight of the diagram would recall the associated object. They *stand together* in your mind afterward. This we have already found to be the groundwork and chief element of all association of ideas and feelings, viz., *prior coëxistence* in the mind. Suppose, now, you wish to fix in the mind the list of English kings. Make out a corresponding list of simple figures, or images of objects, giving each its invariable place in relation to the series: No. 1, a pump; No. 2, a goose, etc., till you reach a sufficient number, say a hundred. These are committed to memory, fixed indelibly in the mind. You then associate with those figures your English kings; Charles I. stands by the pump; Charles II. pursues the goose; James hugs the bear, and so on. These things thus once firmly linked together, remain afterward associated, and the figure serves at once to recall the associate monarch, and to fix his place in the series. The same series of figures, of course, will serve for any number of different series of events, personages, etc., which are to be remembered.

It may be seriously questioned, I think, whether such systems are of real value; whether they do not really weaken the memory and throw it into disuse, by departing from the ordinary laws and methods of suggestion, and substituting a purely artificial, arbitrary, and mechanical process; whether, moreover, they really accomplish what they propose; whether, since the signs or figures have no natural relation to each other, and none to the things signified, but only the arbitrary relation imposed by the system, it is not really as difficult to fix the connection of the two things in your mind, *e. g.*, to remember that Charles the Second is represented by a dog or by a goose, as it would be simply, and in the natural way, to remember the things themselves without any *such* association.

The extent to which the cultivation of the memory may be carried by due training and care, is a topic worthy of some attention. Men of reflection and thought, and generally men of studious habits, literary men and authors, do not, for the most part, rely so much upon the memory as men of a more practical cast and of business pursuits; for this reason, viz., the want of due exercise, this faculty of their minds is not in the most favorable circumstances for development. Some striking exceptions, however, we shall have occasion presently to mention.

It has been already remarked, that prior to the art of printing, the cultivation of the memory was an object of far greater importance, to those who were destined for public life, than it is in modern times, and consequently instances of remarkable memory are much more frequently to be met with among the ancients than among the men of our times. The same remark will apply to men of different pursuits in any age: the more one has occasion to employ the memory, the more striking will be its development.

Cyrus, it is said, knew the name of every officer, Pliny has it of every soldier, that served under him. Themistocles could call by name each one of the twenty thousand citizens of Athens. Hortensius could sit all day at an auction, and at evening give an account from memory of every thing sold, the purchaser, and the price. Muretus saw at Padua a young Corsican, says Mr. Stewart, who could repeat, without hesitation, thirty-six thousand

names in the order in which he heard them, and then reverse the order and proceed backward to the first.

Dr. Wallis, of Oxford, on one occasion at night, in bed, proposed to himself a number of fifty-three places, and found its square root to twenty-seven places, and, without writing down numbers at all, dictated the result from memory twenty days afterward. It was not unusual with him to perform arithmetical operations in the dark, as the extraction of roots, *e. g., to* forty *decimal* places. The distinguished Euler, blind from early life, had always in his memory a table of the first six powers of all numbers, from one to one hundred. On one occasion, two of his pupils, calculating a converging series, on reaching the seventeenth term, found their results differing by one unit at the fiftieth figure, and in order to decide which was correct, Euler went over the whole in his head, and his decision was found afterward to be correct. Pascal forgot nothing of what he had read, or heard, or seen. Menage, at seventy-seven, commemorates, in Latin verses, the favor of the gods, in restoring to him, after partial eclipse, the full powers of memory which had adorned his earlier life.

The instances now given are mentioned by Mr. Stewart; but perhaps the most remarkable instance of great memory, in modern times, is the case of the celebrated *Magliabechi*, librarian of the Duke of Tuscany. He would inform any one who consulted him, not only who had directly treated of any particular subject, but who had indirectly touched upon it in treating of other subjects, to the number of perhaps one hundred different authors, giving the name of the author, the name of the book, the words, often the page, where they were to be found, and with the greatest exactness.

To test his memory, a gentleman of Florence lent him at one time a manuscript he had prepared for the press, and some time afterward, went to him with a sorrowful face, and pretended to have lost his manuscript by accident. The poor author seemed inconsolable, and begged Magliebechi to recollect what he could, and write it down. He assured the unfortunate man that he would, and setting about it, wrote out the entire manuscript without missing a word. He had a *local* memory also, knew

where every book stood. One day the Grand Duke sent for him to inquire if he could procure a book which was very scarce, "No, sir," answered Magliabechi; "it is impossible: there is but *one* in the world; that is in the Grand Seignior's library at Constantinople, and is the *seventh book on the seventh shelf, on the right hand as you go in.*"

EXCERPTA.

Education. — Education, in the most extensive sense of the word, may comprehend every preparation that is made in our youth for the sequel of our lives; and in this sense I use it. Some such preparation is necessary for all conditions, because without it they must be miserable, and probably will be vicious when they grow up, either from the want of the means of subsistence, or from want of rational and inoffensive occupation. In civilized life everything is effected by art and skill. Whence, a person who is provided with neither (and neither can be acquired without exercise and instruction), will be useless; and he that is useless will generally be at the same time mischievous to the community. So that to send an uneducated child into the world is injurious to the rest of mankind; it is little better than to turn out a mad dog or a wild beast into the streets. — *Paley.*

A Simile. — It is a common saying, that the more we know, the more we feel our ignorance. The truth, as well as the reason, of this is most beautifully shown in the simile where a man acquiring knowedge is compared to a luminary. The greater the light and the diameter of the circle illuminated, the greater will be the circumference of that circle — the dividing line between light and darkness — between the known and the unknown.

Good Advice. — One of Wyatt's common sayings was, that there were three things which should always be strictly observed: "Never to play with any man's unhappiness or deformity, for that is inhuman; nor on superiors, for that is saucy and undutiful; nor on holy matters, for that is irreligious."

Resident Editor's Department.

ANNUAL SCHOOL REPORTS.

MAINE.

A gradual advancement in matters of education can readily be perceived by comparing some of the earlier State Reports with those of the present year. In nearly all which have come to hand, we find gratifying signs of improvement. The revision of school laws, the establishment of institutions designed to prepare teachers for the duties of their profession, a better classification of pupils, together with an almost unlimited variety of means and appliances for elevating the standard of scholarship throughout the country, show unmistakably the great interest which is now felt upon so important a subject. In Maine, the amount of money required by law for the support of schools is thirty-three per cent. higher now, than only a few years since; and yet the people have raised, the past year, fifty-four thousand dollars more than the sum required. The number of children in the State between the ages of four and twenty-one is 240,764. The mean average attendance has been about 108,000 pupils. One hundred and fifty-nine new school houses have been erected at an expense of $114,000.

Teachers' Conventions have been organized in different parts of the State, and much valuable instruction in this way has been imparted to those engaged in teaching.

But one of the most encouraging signs of progress is in the general enthusiasm manifested by the teachers themselves. In addition to the numerous conventions and associations for professional improvement, it is now proposed to establish a State educational journal. Hon. Mark Dunnell, State Superintendent, calls attention to this object in the following language: —

> Attempts have been made to obtain the continued publication of such a journal in this State, and although they may have partially failed, it should not dissuade from another attempt. The magnitude of the interest involved absolutely demands it. An interest which involves the annual expenditure of six or seven hundred thousand dollars, and the education of two hundred and forty thousand scholars, imperiously calls for an organ in which may be discussed any and every means of making this interest as mighty in its results as it is grand and

beneficent in its purposes. Every political party, and every religious denomination, has its journal, in which are presented its principles, its condition, its triumphs and its modes of operation. This is as it should be. A monthly journal would bring to school officers, parents, teachers and scholars, various articles concerning their respective rights, powers, duties and obligations. Without school libraries there is a wide-spread destitution of reliable information on every subject connected with our schools. Such an auxiliary can be sustained in Maine with the proper exertion as well as in other States. The common schools of Massachusetts, New Hampshire, Rhode Island, Connecticut, New York, Pennsylvania, Illinois, and quite a number of other States, are not without this agency. It should be recollected that Rhode Island has but seven hundred common school teachers, while Maine has seven thousand. The former has her Rhode Island Schoolmaster, but the latter can boast no such honor. I have determined, with the aid which I doubt not will be readily granted, to bring this subject home to School Committees and teachers, the present month, by the circulation of a memorial, setting forth its demand, its power for good, and the terms and conditions on which it can be started and sustained.

And he concludes by recommending

That the sum of three hundred dollars be appropriated to aid in the establishment of an educational journal, to be devoted to the common school interests of the State; and that one copy of the journal shall be sent to the superintending School Committees in the several cities and towns of the State.

Since the publication of the "Annual Report," we have received a letter from the Superintendent, in which he announces that arrangements have been made for the immediate issue of such a journal. We heartily wish it all the success which a noble cause deserves. The seven thousand teachers of Maine ought to step forward at once and place the enterprise beyond the reach of a failure.

Incidents in the Education of Sir Walter Scott. — Mr. Lockhart notes that a schoolfellow, Mr. Claud Russell, remembers Scott to have once made a great leap in his class, through the stupidity of some laggard on the dult's (dolt's) bench, who being asked, on boggling at *cum*, "what part of speech is *with?*" answered, "a substantive." The rector, after a moment's pause, thought it worth while to ask his *dux* — "Is *with* ever a substantive?" but all were silent till the query reached Scott, then near the bottom of the class, who instantly responded by quoting a verse from the book of Judges: — "And Sampson said unto Delilah, if they bind me with seven green *withs* that were never dried, then shall I be weak, and as another man."

Another upward movement, accomplished in a less laudable manner, Scott thus related to Mr. Rogers, the poet: —

"There was a boy in my class at school, who stood always at the top, nor could I with all my efforts supplant him. Day came after day, and still he kept his place, do what I would; till at length I observed that when a question was asked him, he always fumbled with his fingers at a particular button on the lower

part of his waistcoat. To remove it, therefore, became expedient in my eyes; and in an evil moment it was removed with a knife. Great was my anxiety to know the success of my measure; and it succeeded too well. When the boy was again questioned, his fingers sought again for the button, but it was not to be found. In his distress, he looked down for it; it was to be seen no more than to be felt. He stood confounded, and I took possession of his place; nor did he ever recover it, or ever, I believe, suspect who was the author of his wrong. Often in after life has the sight of him smote me as I passed by him; and often have I resolved to make him some reparation; but it ended in good resolutions."

Mathematical.

QUESTION 14. There is a conical vessel, the altitude of which is a, and the diameter of the top b. Required the diameter of a spherical ball that shall expel the greatest possible amount of water, the vessel having previously been filled with that liquid. M. C. S.

QUESTION 15. Given the base, the difference of the angles at the base, and the altitude, of a plane triangle, to construct it. M. C. S.

PROPERTIES OF NUMBERS.

The difference between unity and any even integral power of an odd number is divisible by 8.

For example, $7^2 - 1 = 48 = 6 \times 8$, and $5^6 - 1 = 15{,}624 = 1{,}953 \times 8$.

To prove this principle, let $m^{2p} - 1$ represent the difference between 1 and any even power of the odd number m. Now

$$m^{2p} - 1 = (m^p + 1)\,(m^p - 1).$$

If p is an odd number, the first factor is divisible by $m + 1$, and the second by $m - 1$. But if p is an even number, and equal to $2p'$, $m^p - 1$, or its equal, $m^{2p'} - 1$, may be separated into the two factors, $m^{p'} + 1$ and $m^{p'} - 1$. If p' is an even number, $m^{p'} - 1$ may again be separated into factors; and so on, until the exponent of m is either an odd number or 2. In the former case, the factor of the form $m^p + 1$ is divisible by $m + 1$, and the factor of the form $m^p - 1$, by $m - 1$; in the second case, the factor of the form $m^p - 1$ is divisible by both $m + 1$ and $m - 1$.

But, since m is an odd number, $m + 1$ and $m - 1$ must both be even numbers, and therefore both divisible by 2. Moreover, either $m + 1$ or $m - 1$ must be divisible by 4; for let $m - 1 = 2r$, then $m + 1 = 2r + 2 = 2(r + 1)$. Now, if r is even, $2r$ is divisible by 4, and consequently $m - 1$ is divisible by 4; but, if r is odd, $r + 1$ is even, and $2(r + 1)$ is divisible by 4, and therefore $m + 1$ is divisible by the same number. In all cases, therefore, $m^{2p} - 1$ will have 2 three times as a factor; or, in other words, it will be divisible by 8.

Corollary. Since $m^4 - 1 = (m^2 + 1)(m^2 - 1)$, and since any power of an odd number is odd, the first factor is even and divisible by 2, and the second factor, as we have seen above, is divisible by 8. Consequently, $m^4 - 1$ is divisible by $16 = 4 \times 4$.

In the same manner it may be shown that

$m^8 - 1$ is divisible by . . . $32 = 4 \times 8$;
$m^{16} - 1$ " " . . . $64 = 4 \times 16$;
$m^{32} - 1$ " " . . . $128 = 4 \times 32$.

Hence: *If any power of an odd number has for its exponent an integral power of 2, the difference between unity and such power of the number is divisible by four times the exponent.*

SOLUTION OF QUESTION 8.

[An inclined plane is 30 feet long, and 5 feet high. What power will support 3000 lbs. upon the plane, when the power acts at an angle of 10° with the plane, and what will be the pressure upon the plane?]

By the laws of Mechanics and Trigonometry,

$$30 : 5 = \text{R} : \text{sine of the angle of elevation}; \therefore$$

by logarithms, angle of elevation $= 9° 35' 38''$.

We have also, designating the power by P,

$$\text{P} : 3000 = \text{sine of elevation} : \text{sine } 100°;$$

100° being the angle made by the direction in which the power acts, and a line at right angles with the plane. Hence,

$$\text{P} = 507.71395 \text{ lbs.}$$

Also, weight $= 3000$: pressure $=$ sine 100° : sine of the angle between the direction of the power and the height of the plane.

$$\therefore \text{pressure} = 2869.868 \text{ lbs.}$$ W.

The design of this question was to exercise learners, rather than to employ experts. Many of our school-books are deficient, and some are sadly erroneous, with regard to the principles of the inclined plane. But almost any skilful pupil who is well acquainted with trigonometry, and the composition and resolution of force, can without much difficulty obtain general formulæ for the ratio of the power, weight, and pressure, whatever angle the direction of the power makes with the plane.

If we designate the power, weight, and pressure respectively by P, W, and p, the angle of elevation by x, and the angle which the direction of the power makes with the plane by y, the following convenient formulæ may be found:

$$\text{P} : \text{W} = \text{sin. } x : \text{cos. } y;$$
$$\text{P} : p = \text{sin. } x : \text{cos. } (x + y);$$
$$\text{W} : p = \text{cos. } y : \text{cos. } (x + y).$$

From these three proportions, by making suitable changes in the value of y, and observing the relations between the sides of a right-angled triangle and the sines of the opposite angles, we may deduce all the usual formulæ for particular cases, such as when the power acts parallel to the plane or parallel to the base. The writer has found the theory of the inclined plane an excellent exercise for his pupils, and believes that others will also find it useful. Demonstration

whenever attainable, is vastly preferable to mere assertion, and, in a plurality of cases, much more economical. ED.

SOLUTION OF QUESTION 9.

[A and B are 180 miles apart, and travel towards each other. A goes 2 miles the first day, 5 the second, 8 the third, and so on. B goes uniformly 10 miles per day. When will they be together?

This problem gives 8 days and — 15 days. How is the negative result to be interpreted, and how must the question be stated so as to give 15 days and — 8 days?]

The — 15 days means 15 days before, when, if the same rates of motion had been in progress, they would have been together, and travelling the *same* way. To get 15 days and — 8 days, the question must become: "A and B are 180 miles apart, and travel the same way. A goes 1 mile the first day, 4 miles the second, 7 the third, and so on. B goes 10 miles each day. When will they be together?" W.

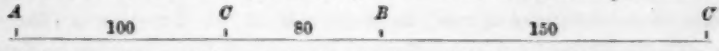
SOLUTION SECOND.

From the conditions we have

$$\frac{x}{2}[4 + 3(x - 1)] + 10x = 180.$$

Whence $$x = 8 \text{ or } -15.$$

To explain the two values of x, let us suppose that A and B were 180 miles apart at the beginning of a year. This may then be considered the zero of time, and consequently the plus value of x must be counted forward into January, and the minus value backward into December; that is, the plus value shows that they will be together at the close of their day's journey on the 8th of January, and the minus value shows that they were together at the commencement of their day's journey on the 17th of December. In both cases, B travels uniformly 10 miles per day; but, as A travels 2 miles on the 1st of January, 5 miles on the 2d, and so on, increasing his daily rate 3 miles every day that he goes forward, so in going backward he must decrease his daily rate 3 miles every day. On the 31st of December, therefore, he travelled 3 miles less than on the 1st of January, that is, — 1 mile; on the 30th, — 4 miles; on the 29th, — 7 miles; and so on. Now, if we suppose A and B in the figure to be the positions of A and B at the zero of time, and that afterwards they travel towards



C, we shall have B's position at the beginning of the 17th of December, by taking him to the right from the point B $15 \times 10 = 150$ miles to C'; and A's position at the same time, by taking him to the left from the point A a number of miles equal to the sum of 15 terms of the series — 1, — 4, — 7, &c. This sum is $-\frac{15}{2}(2 + 3 \times 14) = -330$. But, if we take him — 330 miles to the left of the point A, we really take him 330 miles to the right of the point A, or to C', where B was at the same time.

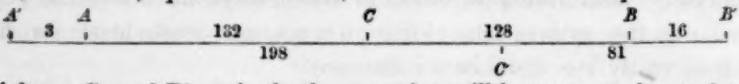
This mode of estimating the journey in negative time may be farther illustrated by the following problem: A and B are 260 miles apart, and travel

towards each other. A goes 6 miles the first day, 9 miles the second day, &c. B goes 9 miles the first day, 11 miles the second day, &c. When will they be together?

We have $\frac{x}{2}[12 + 3(x-1)] + \frac{x}{2}[18 + 2(x-1)] = 260.$

Whence $x = 8$ or -13.

If we take the time when they were 260 miles apart for the zero of time, the above values show that they will be together 8 days after that time, and that they were together 13 days before it. A's series in positive time will be 6, 9, 12, &c., to 8 terms, equal to 132 miles, to be measured from the point A towards



the right to C; and B's series in the same time will be 9, 11, 13, &c., to 8 terms, equal to 128 miles, to be measured from the point B towards the left, that is, to C also. In negative time, A's series will be 3, 0, — 3, — 6, &c., to 13 terms, equal to — 195 miles, to be measured from the point A towards the left, bringing him really 195 miles to the right of the point A, or to C'. B's series in the same time is 7, 5, 3, 1, — 1, — 3, &c., to 13 terms, equal to — 65 miles, to be measured from the point B to the right, bringing him really 65 miles to the left of the point B, or to C' also. It may be observed, that in the last series for A there were two terms preceding the negative terms; so that in returning on his track he has really to go first 3 miles to A', and then go 198 miles from A' to C'. In like manner, B's return track in the first four days will carry him 16 miles to B', and then 81 miles from B' to C'. J. B. H.

Scientific.

A paper read before the Royal Society, by Dr. Smith, tends to quiet the suspicions now somewhat rife, that a person *wears out* faster by railway travelling, than by travelling in other ways; that railway travelling occasions, from its great speed, a greater wear of the system than other modes of travelling.

This paper assumes that the wear of the system is in proportion to the activity of the organs of pulsation and respiration. The amount one breathes is in proportion, not to the rapidity with which he is moved in one line, but to the oscillation of the body; to the number of new motions commenced that call for muscular action, not to the condition that we place ourselves in, the continuing in which calls for no expenditure of either mental or bodily force. Thus there is greater wear of our systems in riding on a train moving at the rate of thirty miles per hour,

than one moving at the rate of fifty-five miles per hour, because there is more oscillation at the former than at the latter rate.

The amount of air consumed will depend much upon the condition of the road and of the cars. Dr. Smith found that in riding on the engine, he consumed two hundred and fifty cubic inches of air more per minute than when sitting quietly at home; while in the second class car the increased consumption of air amounted to but two hundred cubic inches, and in cars of the first class, to but one hundred and fifty cubic inches per minute. And riding in either of these ways he proved to be less expensive to the system than riding on a common road, hour for hour. Of course, vastly less distance for distance.

Morse Telegraph in France.—A commission appointed in France to consider the claims of Professor Morse, for remuneration, because his telegraph was employed in that country, have reported in his favor, and have recommended the payment to him of 400,000 francs. As Professor Morse's telegraph was first patented in France, and has been the one mostly used in that country, where all the telegraphs are under government control, the sum is very respectable.

Intelligence.

Worcester County Teachers' Association.—The next semiannual meeting of this Association will be held in Mendon, on Friday and Saturday, the 11th and 12th of June.

Besides discussions on various topics of educational interest, lectures are expected from Rev. M. Richardson of Worcester, Mr. Putnam of the Quincy School, Boston, and others. Teachers, and all interested, are cordially invited to attend.

S. W. Cooke,
Sec. Wor. County Teachers' Association.

Plymouth County Teachers' Association.—The seventeenth semiannual meeting of this Association will be holden at Bridgewater, on Friday and Saturday, June 18th and 19th.

Lectures will be delivered by A. G. Boyden, Esq., of the Bridgewater Normal School, Rev. A. B. Fuller of Boston, and P. W. Calkins of the Worcester High School.

There will also be discussions upon topics to be announced hereafter, and other exercises of interest to teachers and educators.

All teachers and friends of education are respectfully and cordially invited to attend.

A. P. Stone,
President Plymouth Co. Teachers' Association.

NORFOLK COUNTY TEACHERS' ASSOCIATION. — The twenty-first semiannual meeting of the Norfolk County Teachers' Association will be held at Cohasset, on Friday and Saturday, the 18th and 19th of June. The Association will convene at 10½ o'clock, A. M., on Friday, and the exercises will be as follows: —

At 3, P. M., a lecture by Rev. E. B. Wilson, of West Roxbury; at 7½, P. M., a lecture by B. W. Putnam, Esq., of the Quincy School, Boston.

On Saturday, at 9, A. M., a discussion; at 10½, a lecture by J. Kimball, Esq., of the Dorchester High School.

The following subjects are proposed for discussion: 1st, The best means of securing truthfulness in scholars; 2d, The best means of avoiding the evils resulting from the frequent change of text-books in schools; 3d, Is the special detention of delinquent pupils advisable?

It is desirable that teachers prepare themselves for the discussions, that the meeting may be interesting and profitable. Ladies are expected to participate in the discussions, by means of essays. Teachers, School Committees, and all interested in the subject of education are cordially invited to attend. The choice of officers for the ensuing year, will take place on Saturday, at 10 o'clock, A. M.

LEVI DODGE, *President.*

LEMUEL C. GROSVENOR, *Secretary.*

DEATH OF REV. A. R. POPE.—Rev. Augustus R. Pope, of Somerville, died at his residence on the morning of the 24th of May. In his death the friends of education have met with a severe loss. His eminent talents as a preacher and lecturer, his genial manners and many good qualities as a citizen had endeared him to all who knew him. At the time of his decease he was 39 years of age. He was born in Boston, graduated at Harvard in 1839, and subsequently passed through the Divinity School at Cambridge. He first engaged in the ministry at Kingston, from which he removed to Somerville to take charge of the Unitarian Church in that town. Ex-Governor N. B. Baker of New Hampshire, but now of Iowa, Rev. E. E. Hale of the South Church in this city, Dr. Hayward, Samuel Elliot, Charles M. Ellis of this city, and Rev. Samuel Longfellow of Brooklyn, N. Y., were his classmates.

FOXBORO'.—The English and Classical School which has just been opened in Foxboro' under the charge of Mr. James L. Stone as Principal and N. G. Bonney as first Assistant, has, we understand, met with fine success. On the second week of the term sixty-three scholars were connected with the institution, of whom about one-third pursue the study of Latin.

DEATH OF ROBERT HARE.—Dr. Robert Hare, the well-known natural philosopher, died in Philadelphia on Saturday, May 15th, at the ripe old age of seventy-seven years, having been born in 1781.

B. F. MORRISON, Esq., of Lynn, has been engaged as Principal of the High School at Nantucket.

A WORD TO OUR SUBSCRIBERS. — In the May number of the *Teacher*, bills were sent to many of our subscribers. Now as mistakes will occur in the best-regulated establishments, it would not greatly surprise us if some occurred in ours. We have not *intentionally* sent bills to any who have already settled their little accounts. But if, by any mishap, we have thus unwittingly sinned, we humbly beg our friends not to be extravagantly indignant — a *slight* disturbance of one's equanimity may be excusable — and we assure them that we shall take pleasure in correcting our subscription book to the satisfaction of all concerned. If any of those bills are wrong, inform us of the fact *gently*, and we will promptly adjust them. Indeed, we shall be exceedingly happy to adjust even those which are right.